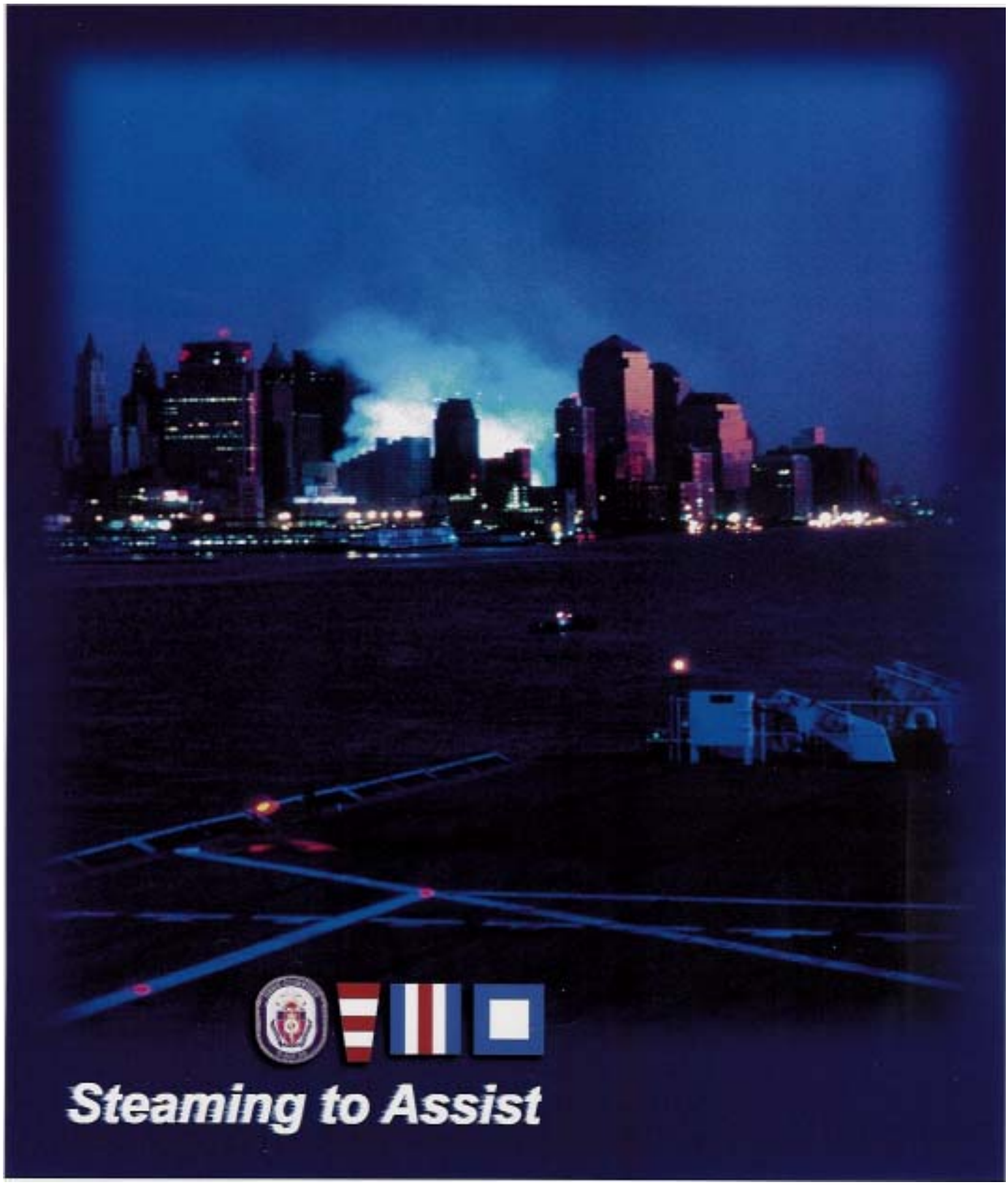
NAVY MEDICINE

November-December 2001



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Cover: Smoke rises from the World Trade Center site as USNS *Comfort* (T-AH 20) arrives in New York on 14 September 2001. Photo by HM2(FMF) Michael S. Duff, USN, Medical Photographer, Naval Ambulatory Care Clinic (NACC) Newport. Story on page 3.

Photo by PhC Robert Houlihan

Official U.S. Navy Photo

Navy Medicine Responds

The world, as we know it, changed on September 11th. Not since Pearl Harbor has America been attacked with such viciousness and never have we had to deal with terrorism coming to our homeland from abroad. Until now, we always prepared to deploy to war somewhere else. September 11th forced us to change our thinking but not to abandon our mission. We must now make a sea change in all our thoughts and actions.

Since the beginning of Navy medicine, our mission has been to promote the health of Sailors and Marines who go into harm's way; protect them from all possible hazards when they do; restore the sick and injured, just as we also care for their families at home; and finally, help a grateful nation thank its retired protectors with TRICARE for Life.

This mission is called **Force Health Protection**. It is how the men and women of Navy medicine express our core values of honor, courage, and commitment. It is what we did on September 10th, it is what we did yesterday, and it is what we will always do.

The response of our medical professionals to the events of September 11th provides a heartening illustration of our readiness to…our preparedness to fulfill our mission. As most people rushed to leave the sites of the terrorist attacks at the Pentagon and the World Trade Center, heroes of Navy

medicine came rushing in. Whether responding with triage and treatment at the Pentagon, or swiftly manning up and deploying the USNS *Comfort*, it was a magnificent mission done exactly right.

During my recent travels to some of our facilities in the mid-Atlantic and West Coasts, our people have asked me two questions: what's going to happen next, and what should I be doing?

To the question, "what happens next?" I must admit I don't know. We have no idea exactly what will take place on the world stage, or what our tasks will be. Maybe this situation will be short-lived and require limited resources. Maybe it will be a larger conflict over many years. I don't know. But I know Navy medicine will respond to any eventuality.

"What should I be doing?" What Navy medicine needs to do to be ready for this unpredictable future is the same thing we did on September 10th—take care of our patients and take care of our families and shipmates. We need to do what we're doing right now, and do the very best we can because this work prepares us for whatever comes next.

Since becoming the Navy Surgeon General, I have carried the message of Force Health Protection through **Readiness**, **Optimization**, and **Integration**. Recent events have only served to strengthen my conviction that this is the correct course. We're building on great success. We have the right men and women, and we have the right focus.

September 11th opened our eyes and shook our foundation, but we were prepared and we will prevail in this new and complex war. It will be an asymmetric war and we will strike back asymmetrically—politically, economically, socially, and militarily. And in the end, the military piece will be paramount to success. The military cannot be successful without the Navy and Marine Corps, and the Navy and Marine Corps cannot be successful without Navy medicine.

So keep doing what you do, keep your socks and powder dry. Charlie Papa. ❑

VADM Michael L. Cowan, MC, USN
Surgeon General of the Navy

Navy Medicine "Steams to Assist" and Honors Heroes

Photo by LTjg M. Kafka

HM2 Willie Scott (left) and HM2 Tijani Abdulsalam (right) raise the charlie-papa signal flags on the BUMED compound.

On 27 September 2001, Navy medicine hauled down its charlie-golf-one colors and hoisted the charlie-papa flags, signaling a change in Navy medicine's "standing by, ready to assist" mode to the more active "steaming to assist."

Navy Surgeon General VADM Michael L. Cowan, MC, who spoke at the informal color shifting ceremony, said this change comes at a time when Navy medicine has proven itself to be on the front line of world events, actively assisting.

"We are no longer standing by to help when a Sailor or Marine is sick or injured," said Cowan in his remarks during the ceremony. "We are out in front of the problem, providing preventive care, promoting wellness, and anticipating crises before they occur."

Cowan used the recent terrorist attacks as an example of a more proactive Navy medicine.

"After the terrorists struck the Pentagon, our Navy medicine people were among the first to respond," said Cowan. "They were there, immediately, assisting with the injured."

Former Navy Surgeon General VADM James A. Zimble, MC, who retired from the Navy in 1991, introduced the charlie-golf-one signal flag message in 1987 shortly after he took office. He attended the ceremony and was presented with the old signal flags.

Honored at the ceremony were Navy medical personnel who were on the front line of the Pentagon terrorist attack and who responded immediately after. They were:

CAPT Stephen Frost, MC, and CAPT John Feerick, MC, both Naval Reservists on active duty. They were at the Pentagon when they felt a rumble, and then learned of the attack. They ran to the crash site, and appeared to be the first medical personnel to arrive. When officials screamed warnings of another plane, neither left their burned or injured victims. As the hours passed, they also began treating firefighters and other rescue personnel. They stayed all night and into the next day.

"I watched the unbelievable personal sacrifice of thousands of people at that site and, as horrible as it was, I will always be honored to have been a part of it," said Feerick.

HMC Warren Terrell was at the Navy Annex when the plane hit. Terrell set up a triage area to aid burn and smoke inhalation victims in a nearby Marine Corps gymnasium.

CAPT Jane Vieira, CHC, BUMED's chaplain, raced to the Pentagon after the attack and spent the next 2 days providing last rites to the dead and dying, and offered spiritual comfort to families of victims.

CDR John Knowles, MSC, and LTJG Johanna Mills, NC, of the National Naval Medical Center's Special Psychiatric Rapid Intervention Team, or SPRINT, worked tirelessly with their team at a location near the Pentagon, providing stress management assistance and one-on-one counseling. They aided an estimated 1,500 individuals during a 2-week period following the attack.

VADM Cowan also praised the men and women aboard USNS *Comfort* who provided care and respite to New York City's rescue and recovery workers, firefighters, and policemen.

The idea of changing the signal flags and Navy motto to the more active "steaming to assist" came from LCDR Dick Turner, NC, while he was serving at U.S. Naval Hospital Guam.

The charlie-papa signal flags were flown at all Navy medicine commands world-wide beginning 28 Sept 2001. ❑

—Story by Jan Davis, BUMED Public Affairs.

IN NEW YORK ...

U.S. Navy Photo by JO1 Preston Keres

USNS *Comfort* sails past the Statue of Liberty as she steams into New York City to assist.

Bringing Comfort

What started out as a mission to save lives ended up being a call to care for—and comfort—a city in need.

At 1500 on 12 September 2001, USNS *Comfort* (T-AH 20) left its berth in Baltimore with about 150 Sailors from the National Naval Medical Center (NNMC) and other commands, along with about 61 civil service mariners, headed for New York City. At the time its mission was to provide medical assistance to the victims of the terrorist attack on the World Trade Center. Within 24 hours, though, everything would change.

By the time the ship reached Naval Weapons Station Earle, NJ, 2 days later and loaded about 500 more Sailors, it received orders to change missions. It would now provide logistical and support services to firefighters and emergency personnel working in the disaster recovery effort.

"Things are changing so rapidly in this operation," explained Military Treatment Facility Commanding Officer CAPT Charles Blankenship, MC, to the crew as he told them about the change in missions during a captain's call on board the ship. "We just have to be prepared and realize that what we do today, may not be what we are doing tomorrow."

For many of the NNMC Sailors, the change in missions meant turning around and going back home. In a little more than an hour, nearly 450 medical and support personnel had packed, disembarked and boarded buses, destined to return to their normal duty stations, including Bethesda

and other Navy hospitals and clinics along the East Coast. The nearly 150 critical core personnel who remained on board were left with the task of converting the hospital ship from a major medical and surgical facility to a logistics support facility ready to care for possibly thousands of disaster relief workers.

For the crew still on board *Comfort*, when it pulled into New York City that Friday night, the previous week had been a lesson in readiness, flexibility, and dedication.

Saturday, 15 September, was a busy day aboard. The Navy hospital ship, berthed at pier 92 on Manhattan's West Side, provided food, laundry services, and short-term lodging space for the hundreds of police officers, firemen, and disaster recovery personnel working in lower Manhattan. The casualty receiving area on board the ship that would normally be used to give initial medical care to patients had been converted to a check-in location for the relief workers. The hospital beds were now covered with snacks, drinks, and other donated supplies for the relief workers checking aboard.

Trucks carrying donated clothing, snack foods, and supplies for the search and rescue workers arrived throughout the day. Many of the rescue workers rushed to the disaster site from throughout the United States with only the clothes they were wearing, so relief agencies and private citizens donated clothing and personal hygiene items for them.

More than 50 disaster workers spent the night on *Comfort* that Saturday. When they arrived they were greeted by Sailors and given towels, toiletries, pajamas, and any clothing items they might need and a laundry bag. The workers were escorted to a berthing area aboard the ship where they could change out of their dirty clothing and head for hot showers. After cleaning up, the workers could eat a hot meal or simply hit their racks for much-needed sleep. Sleeping areas on the ship are equipped with blackout curtains that can be drawn around the beds. If the workers requested, their clothing was laundered, dried, and readied for pickup while they were sleeping.

"The people on this ship are amazing," said New York City police officer Kevin O'Keeffe, who came on board the ship with some other police officers to get a hot breakfast and some coffee. "When we first came on board someone escorted us to the galley. It was like they rolled the red carpet out for us. As cops, we don't get treated like this unless it is Thanksgiving or Christmas, and we are at home.

"We want to say thank you to everyone on the ship and in the military."

Lining the walls are T-shirts, donated from all over the country, with handwritten messages of thanks to the workers for their efforts.

There are cards, too.

One obviously written by a child reads:

"Dear Firemen,

Thank-you for trying to find people. If you can, can you please find my aunt? Her name is Donna Clarke.

Thank-you,

Kristina Clarke"

LCDR Steve Gottlieb, director of administration on the *Comfort* and the deputy head of the Patient Administration Service Line at NNMC, admitted that he could not help but read that particular card several times a day.

"I am drawn to it. I mean, here is this little girl, basically begging for someone to find her aunt. It is the purity in her simple words; her love for her family member who is probably not even alive; it is heartbreaking."

Sailors form human chain to pass boxes one by one onto the ship after a crane broke down.

Although most of the *Comfort* crew were not permitted to leave the pier, some small groups went to the center of the disaster site. CDR Ralph Jones, MC, director of Surgical Services on board *Comfort* and an NNMC surgical oncologist, led an advance group of five crew members down to what most are referring to as "Ground Zero" to visually assess the damage. Jones said the scene was unimaginable.

"There is paper everywhere, all kinds of disruption," according to Jones. "People are sleeping on debris. Rescue workers standing up, leaning against street posts trying to get some shut-eye. When we got there, people started clapping, telling us 'thanks' for coming."

"Then, all of a sudden, I had about 40 or 50 firefighters gathered around

Photo by HM2(FMF) Michael S. Duff, USN

me, crying. They needed help, a break, but they were afraid that if they left the scene, they would not be able to come back."

Jones realized then just how important the new mission was for *Comfort* and its crew. The ship provides a place for them to get away for a few hours; the Sailors aboard provide smiles to lift their morale and ears to listen to their stories.

It is true that some of the corpsmen aboard feel disappointed that they will not be able to lend more medical assistance, but most realize the value of their current role.

ENS Marge Faulkner, MSC, who is a dietician at NNMC and a supply officer aboard the *Comfort*, said, "Doctors are now doing things they normally do not do. Nurses are out there meeting and greeting. Everyone is just trying to help out in whatever way they can."

Teamwork has been a major part of accomplishing the mission. When a steam line broke, temporarily leaving the ship without hot water for several hours one day, the civilian mariners onboard worked quickly to make repairs so that rescue workers would get that hot shower they came for.

When a crane that would normally be used to bring supplies onto the ship broke, Sailors formed a human chain that went from the pier all the way to the stock rooms, and passed boxes, one by one, for hours to load all the shipments.

SH3 Oleg Gutkin, a 24-year-old NNMC Sailor who usually works in the hospital's warehouse, said he could see his hometown of Brooklyn from the deck of the ship as it pulled into port. He admitted that the entire crew seemed pretty tired, but the fact that they knew they were making a difference kept them going.

"The relief workers really appreciate what we are doing for them here," said Gutkin. "They talk to us and tell us how much we're helping. We can tell that just by looking at the expressions on their faces when they are here. They know we care."

Caring, according to all the crewmembers on the *Comfort*, was one of the most important aspects in this entire tragedy. In many ways, they said their mission had not really ever changed.

For the Sailors and the civilian mariners on board the ship, bringing comfort to a city in need was really all their mission was ever about. ❑

—Story by JO2 Ellen Maurer, National Naval Medical Center Public Affairs, Bethesda, MD.

Photo by JO2 Ellen Maurer, National Naval Medical Center

Disaster relief workers gather in the ship's casualty receiving area to be checked in after which they will be given clean clothes and shown either to their berthing area or to the galley for a hot meal.

The Right Thing to Do

Following the attack on the World Trade Center, USNS* Comfort *(T-AH 20), homeported in Baltimore, MD, deployed to New York to aid the stricken city. CAPT Ralph Bally, MSC, USN, staff psychologist at the National Naval Medical Center and head of the mental health team aboard the hospital ship joined* Comfort *in Earl, NJ, where it was taking aboard supplies. Dr. Bally told of his experiences in an interview with* Navy Medicine *on 11 October.

Friday [14 September] turned out to be a tough day. We all got to NNMC early in the morning and boarded the buses for the 4-hour ride up to Earl, NJ. Eventually, we all got unloaded, checked aboard, got our rooms, unpacked our seabags, and checked into our workstations. Then, within an hour of arriving, there was an announcement that there had been a change in the mission. The hospital ship was going to be used to provide comfort, meaning living spaces, food spaces, and showers for the rescue workers. And except for a very core crew, everybody else was told to pack their seabags to go home.

I can remember being very disappointed because I thought there was going to be a big mental health portion of this. And I was ready to go. When anything this terrible happens to our country, we all want to pitch in and help. Then, all of a sudden, you were being told to go home.

Then, CDR Terry Dwyer, who is in charge of sick call operations, pointed his finger at me. I looked at myself and looked beside me as if to say, "Who is he pointing at?" He then said, "We need you and the rest of the mental health folks. You are going to be a part of this mission."

We were not actually on the ship as a SPRINT team. When the ship goes out configured as a 250-bed hospital, it goes with dedicated mental health assets. I and one of the psychiatrists are part of the mental health assets. The unit is composed of myself as a psychologist, LT James Reeve, a psychiatrist, and a psych tech. We actually work in the trauma area. When patients come in and they have psychiatric problems, they will be triaged to us. And if they need further acute kind of treatment, they are actually moved onto the medical wards awaiting transfer off the ship.

It just so happens that on the 250-bed configuration there is also a psychiatric nurse, but she actually works

Photos by HM2(FMF) Michael S. Duff, USN

The Skipper (CAPT Charles Blandenship, MC) and the Deputy Mayor of New York at Ground Zero.

on the medical wards. If the ship was going out in the 500-bed configuration, there is an extra psychiatrist and another psych tech that comes along. I asked for both of them to come out with the ship. What we actually had as mental health assets was myself, two psychiatrists, a psych nurse, and three psychiatric technicians. It also turned out that both of the chaplains who were out there were also trained in responding to disasters.

As the mental health people aboard the ship, I saw a dual mission. Part of that mission was to take care of the rescuers and part of the mission was to remember to watch the staff to make sure they were also taking care of themselves as they provided care for these folks.

I had a lot of mixed feelings as we neared our objective. There was a somberness and a pride. As we crossed the bay from Earl, NJ, we could see the smoke in the distance and that gave me a very somber feeling. We knew where we were headed. But as we went under the Verrazano-Narrows Bridge . . . it is interesting. I am actually a little bit sad about this. Cars and trucks would slow down and you could see people wave and they would be beeping. Right away, you knew the ship was a tremendous symbol of comfort and hope coming to the people. The Navy was coming to really help out in this disaster. So I had a sense of pride that I was a part of this tremendous operation.

We were still far enough back so you could see the skyline of New York with some smoke. Unless you had a picture in your hand that showed you where the two towers stood, you would not know that something was missing.

We did not park right there by the World Trade Center. Our berth was about 2 miles further up the river. Immediately, we were interested in getting down and seeing "Ground Zero," and starting to make connections. The master chief came in and said, "Would you like to go down? I have made arrangements." And I said, "Absolutely." So I, the chaplain, the CO, the XO, and, what turned out to be the Deputy Mayor, went down to see this first hand.

What I found rather striking was this tremendous sense of camaraderie. I am used to going to New York City and it is always a hustle and bustle of cars. Everybody is beeping horns. Everybody is impatient. And lots of people are rude. And all of a sudden there are people handing out fruit and water at the different checkpoints and people applauding you as you are driving down because you are coming to help. It was just incredible!

We got down to the Battery, unloaded at the Coast Guard Station, and walked into the site. The first thing that struck me was a large group of folks who had lost people in the disaster. They all carried pictures with the names, looking for them. Has anybody seen them wandering around the city, in a hospital somewhere? And they were in shock and grieving at the loss.

Then we walked into the site. There were two huge five-story piles of rubble. One cannot grasp the immensity without standing there. You see a picture of the Grand Canyon and then you stand on the South Rim. Seeing the picture and then seeing it for real, you understand the immensity. The same thing there. You saw the pictures on television, but standing there amidst this huge amount of devastation and destruction . . .

Thousands of policemen, firemen, and rescue workers with a bucket brigade were trying to take this pile apart bucket by bucket and continuing to look for survivors and bodies. As you looked in their faces there was that determined focus that they were going to find someone alive, and they needed to get through the pile and get out the bodies of their comrades. But at the same time, there was a tremendous camaraderie and bonding taking place. People were talking and, in my view, this was very important. To get through these kinds of events, it is very important that people talk it out and percolate internally what has happened, and put the story together for themselves—to make some kind of sense out of the nonsense of it all.

We asked ourselves what we could do aboard the ship. We knew that policemen, firemen, EMTs, and other rescue workers from Ground Zero would be coming aboard. So we decided to offer formal debriefings, and advertised all over the ship. Here were times, and anybody who was interested could come and see us. We advertised as people came up the ramp. When you checked aboard there was a sign-up sheet for those who wanted to be part of this. We also had signs in the chow hall.

There was also a more informal approach. We provided one-page handouts on how to take care of yourself. "This is an upsetting event. It is upsetting for normal folks. These are the kinds of symptoms that normal folks have—loss of sleep, loss of appetite, nausea, feeling depressed, unsafe, angry, etc." And what to do to take care of it.

We looked for people sitting by themselves. We knew that one of the things that can help a person normalize what they have experienced is to have a support group. This is generally your friends. For those people who came from Idaho or Oklahoma or wherever to help out and came by themselves, they might not have a support group. In the chow hall, we gave them an opportunity to talk with us. We could both see how they were

HMC Hollinger (above) and PO Funderburk (below) show firefighters the way to the USNS *Comfort* ... dubbed "The Comfort Inn" ... while in New York City to assist.

doing, and reinforce those kinds of things they needed to be doing to take care of themselves.

Therefore, the initial focus was working with individuals but we also worked with groups. We also worked in sick call. Often, when patients were being treated for minor injuries in sick call, a corpsman would engage them in conversation. And if the corpsman saw the need, we would come in and talk to the patient. This is where the majority of our interventions were done—informally in the chow hall and in sick call.

As the days went by, we began seeing fewer people coming to the ship. We then began talking to some of the policemen and learned that they were making the transition from search and rescue to recovery. Even though it was not formally announced, you could see it was becoming more and more like a construction site. People who had previously been working 17 and 18 hours a day and were unable to drive home ended up eating and sleeping on the ship. Now they were starting to go home and be with their families. So fewer people were coming aboard.

At that time, we were able to contact a group of psychiatrists who respond to disasters. They were needing some help down at Ground Zero so we tied up with them and went down there on Friday and Saturday to do the same kind of informal talking with people. As I walked around Ground Zero and talked to the other mental health folks, I learned that much of what they were doing was just walking around and seeing how folks were doing and handing out information on anxiety reactions and Post Traumatic Stress Disorder (PTSD).

One night I was down at Ground Zero talking to a worker. I was not there more than 60 seconds when a man and woman walked up and introduced themselves to me. Clearly they were friends with the other man. At first I thought they all did the same thing, but when I started talking to the woman, it turned out she was a nurse. The other man was an administrator who worked for the police department. The common bond between all of them was that they had been there from the very beginning as rescue workers and had been part of the bucket brigade. They had seen parts of bodies and other things. They had formed a bond, and had been doing a lot of talking with each other, which was a very healthy kind of thing. I asked about their sleep and appetite and, after awhile got the impression that here, at week two after the incident, they appeared to be coming through it. As they walked away, the man from the police department lingered behind. He told me he had some concerns that his experiences might turn into PTSD. He was eager for some information. I explained the usual anxiety responses normal people have to abnormal situations, and we talked about his symptoms. I assured him that because of what he had already done to take care of himself, it was unlikely he would experience PTSD.

Back at the ship, one of the ship's officers heard one of the folks talking about some of what he had seen and that he was having a lot of difficulty sleeping. The officer suggested that he come talk to me. He was an administrator who worked in disaster preparedness in one of the buildings near Ground Zero. He was at the base of the building when the first plane hit and debris began raining down. But then, as he told me, people came out and said things would be okay; people needed to go back to their offices. He was on the 53rd floor of his building looking out the window and saw the second plane hit. Later he saw some of the people jumping from the building and watched them hit the ground. Needless to say, he was having intrusive thoughts, losing sleep, and having nightmares.

In his case he did not have a lot of people to talk to. He lived in an apartment by himself. There was a next door neighbor he helped take care of, an elderly woman, not someone he could talk to about this. So I was really the first person he had an opportunity to sit and be able to tell his story to.

There is something else worth mentioning. Sick call is right below the flight deck. There were people with carts taking supplies across the flight deck and a few times there was a rumbling noise. As I talked with him, I could see the fear on his face as he looked up. I reassured him that they were just moving supplies. And he said, "That is the sound the building made when it came down."

On another occasion, some policemen were providing supplies to the ship. One was very badly dehydrated and fainted. As his buddy went to grab him, he twisted his knee. We got them both up to sick bay. The one who fainted was in one bed and his buddy in another. As we took care of them, we learned they had lost one of their bosses in the collapse of the towers. And they had been working tremendously long hours—18, 19, 20 hours. They were not getting to go home. And now both were feeling very guilty. "I am not out working but maybe after a couple of hours." Here was this man with a splint from his hip down his leg taking care of his knee saying, "Gee, I will be back in a couple of hours." And here is his buddy, terribly dehydrated, saying, "I need to get back."

While all this was transpiring, five or six of their comrades showed up.

We got them to talk about their loss. It was almost as though we were having an intervention with them right there—with the two buddies in bed and them. Part of the reason we could do this was because of the existence of this close-knit group.

When the two were well enough to go, we would not let them leave the ship until they ate. The whole group went to the chow hall accompanied by two of our officers. We watched them from a distance and could see them getting back together as a group, joking and talking.

The departure from New York was a tremendous experience. We were all out on the flight deck on either side all lined up at parade rest. I was facing up toward the George Washington Bridge. The Office of Emergency Management pier was right there. There were cars parked on top and you could see a couple of police cars and a few reporters with TV cameras. It was 11 am on Monday 1 October. The tugs come in and the untying began. As we pulled away from the pier, we all saluted and held the salute. And people on the pier began to applaud, wave, and yell "Thanks a lot." It was a very emotional experience.

As we went down the Hudson River, we all moved to the port side of the ship to salute the World Trade Center and the people there as we went by. But just before we got there, a fireboat pulled up on either side and let loose a huge spray—their way of saluting us! Then, as we approached directly across from the World Trade Center, we all stood at attention and saluted. As we did so, police boats put color in the water—red, white, and blue. It was just phenomenal and very moving.

I do not think anyone could say that sending the *Comfort* to New York was not the right thing to do. I spent a lot of time in the CASREC (Casualty Receiving) area where people arrived and departed and talked to hundreds of them. To a person, they were all extremely grateful for the comfort we provided in terms of the Navy being there. Not only providing them with a place to get away, and a place to sleep in quiet, but a place where they could get regenerated before going back down to Ground Zero. But the one thing they all commented on was the tremendous care and hospitality that all the staff on the ship showed them. No matter what they wanted, people would go out of their way to get it for them or help any way they could.

U.S. Marine stands his post as the USNS *Comfort* departs New York City.

As I was getting ready to go on the mission, and even after I had gone, many neighbors asked my wife how she felt about my being away. And her response was, "That is what they are trained to do. And he has an opportunity to do what he should be doing." ❑

USNS *Comfort* docked at Pier 92 in New York City.

My name is Daniel Smith of the Skokie, Illinois Fire Department. Myself and five other firefighters recently stayed aboard the USNS* Comfort *deployed to New York City after the September 11th terrorist attack on the WTC. The* Comfort *was to serve as a mass casualty hospital facility. With few survivors, the role of the* Comfort *was changed to house and feed rescue personnel working at the Trade Center site. The hospitality of the* Comfort's *crew was exceptional. We were bunked and fed by a very caring and helpful group of officers and enlisted personnel. We could never board or leave the ship without someone insisting on us eating. We are grateful to the Marines who guarded the ship, patrolled the dock area and controlled access to the ship. This gave us great peace of mind while being preoccupied by the loss of our brother firefighters.

***I extend gratitude and thanks to the Navy Department, Navy Medicine and the* Comfort's *Captain and crew for a* JOB WELL DONE. ❑

AT THE PENTAGON ...

Picking Up the Pieces

On the morning of 11 September, CAPT John P. Feerick, MC, USNR and CAPT Stephen S. Frost, MC, USNR, were at the Pentagon for an early morning meeting when American Airlines Flight 77 slammed into the building. As two of the earliest physician responders to the incident, Feerick and Frost saw the event from a unique perspective. The following are excerpts from an interview conducted by* Navy Medicine *on 13 September.

Feerick: I felt a rumble. It was near the subway entrance and I thought it might have been the subway.

Frost: We were right outside the Reserve Affairs Office for the Assistant Secretary of Defense. We followed the people out of the building and saw a policeman outside directing people. We went over to him and said we were physicians and that we would stand by if needed. He called his command center and directed us to the area where some injured lay on the front lawn by the impacted area near the helipad. We were the only physicians there at the time.

Feerick: There were still some walking wounded stumbling around, and parts of the building still caving. There were still small pockets of what I presume was aviation fuel flaring up. There were windows popping, and glass and particles in the air. CAPT Frost immediately entered this maelstrom and started triaging and ministering to victims.

Frost: We saw many blast injuries, people with swollen faces and reddened skin and severe burns. The burns were the worst part. We really did not have much equipment. One of the EMS trucks had their stuff out there, so we had a limited number of IVs and bags. And that is basically what we were doing—starting IVs and just evaluating the injured for the severity. It was actually CAPT Feerick who was able to get the EMS people to start transporting the people out of the area.

Feerick: Our heads were down when we hit the deck, but when I got to look up after stabilizing the patients that stumbled into me, there were

CAPT Stephen S. Frost, MC, USNR

ambulances coming all along that line. We had many, many people onsite. Who was medical and who was not was impossible to say at that point. Civilians and military were helping people. Those who had skills helped, and those who did not stood by and helped where they could with transport and carrying patients.

We saw about two dozen major injuries. I am sure there were more than that, but we did not manage more

than six to nine hard cases and half a dozen other "maybes"—people that could develop respiratory problems or who might have spinal injuries.

Frost: After working near the impact point and evacuating those patients, we moved back to an area where the civilian EMS had set up a triage area.

Feerick: It was on the "knoll," about a couple of hundred yards on the other side where the tunnel goes into the South Parking Lot. But with multiple aviation threats—people calling in "Everyone get out. There is another air strike coming in,"—all this was disestablishing and scattering people. At that point I thought it was essential to get people under cover so that we could have a fixed base.

There were a lot of people telling other people what to do and my concern was that the chain-of-command was not being followed. My training was that the civilian on-site command medical officer was the director of all military and civilian activities. And I identified him as Dr. Jim Vayfier, an emergency room physician attached to the Alexandria Fire Department. He was superb; he was excellent. He was the best of the best, providing command support and assistance at all levels in reasonable, effective management.

I thought the underpass was a safe, secure place. It was cool, out of the sun, and there was good ventilation. Even though there was smoke all over the place, we had a wind blowing through there that cleared what did come in. We had the curb, two lanes, a middle island, two lanes, and another curb. We set up our medical supplies along the curb. Dr. Frost set up his triage area in the center, and I had the ambulances lined up on the other side. Fortuitously, also, it was close to the helicopter landing spot which was just outside.

When we were setting up teams on that site, CAPT Frost and I discovered MAJ Michael Moore, an Air Force officer who has experience in triage and disaster management. I put him in control of the triage program.

I made the decision early on to designate the civilian medical director to tell us what he wanted with us and to keep the military team together to form the backbone of the major medical supply. Civilian response was basically EMT teams—ambulances. The major casualty care was going to come from the military teams with many attending civilians. I made the decision early in the process that we would use the EMS system and not bypass to go to military hospitals. I triaged and transported. I did not identify who was in what service, their serial number, and to what unit they belonged.

CAPT John P. Feerick, MC, USNR

Frost: In our fullest capability we had seven teams ready to treat people. We saw maybe a dozen people the first few hours after the disaster. There was a team from the Navy Yard Clinic that responded on their own. They brought corpsmen, a couple of PAs, a couple of docs, and some nurses. There were actually a fair number of civilian nurses and I do not have their names. There was a nearby civilian pediatric physician who closed his office and came over. There must have been 50 to 100 people that were there just to help with logistical problems.

Feerick: We probably had 150 medical personnel on the site at one time. Before we were through, CAPT Frost had built himself a fleet hospital down in that underpass. You could have done open heart surgery. Later on, I brought the EMS director who was then in charge down to see what we had. He looked at what CAPT Frost had set up and said, "There is no way I am going to change this. Leave it as it is." He agreed with me that it was safe and secure, totally well organized. Had we actually had livable casualties, it would have been the busiest place in town.

Initially, supplies were available but there was a mal-distribution. However, nothing affected patient care. We had more than enough for the few casualties we saw.

Frost: Initially, we had some supplies, perhaps a dozen IV set ups and bandages. We did not have a lot of splinting material. We were concerned at first that we were going to have a big influx of patients which never occurred. Nevertheless, we got those supplies within the next hour or two.

Feerick: As for the burn patients, they were pretty much evacuated from the site. Maintain an airway, get a line entry for shock, and get them out.

Frost: The worst burns were the ones we saw initially at the helipad area. And after that the burns we saw were just minor. The major injuries were the ones that came out the first 20 minutes to half hour.

Feerick: We had a lot of help from our sister services. LCOL Patty Horaho, Army Nurse Corps, was tireless, energetic, and fearsome in her staff organizational ability to get the job done and get the information out. She was also a key player in maintaining the chain-of-command. COL Craig Urbauer is the Assistant Deputy for Health Care Policy at the Pentagon. He was invaluable as a source of information to me trying to organize what was essentially a joint command—air and ground operation. COL Urbauer let me know who to ask for what I wanted. There was Rich Neel, an Air Force Medical Service Corps officer. COL [James] Geiling from the Walter Reed Clinic who was at Walter Reed at the time of the impact. He arrived late on the scene, physically running because the bridges were blocked. He demonstrated a "warrior-physician" ethic, a physically fearless and heroic behavior pattern that emboldened the troops and provided the Army people with an inside presence. He re-established his clinic in the building. I should also mention MSGT Noel Sepulveda. He was the senior enlisted person at the site who was tireless and invaluable in his efforts to maintain communication and control between the different sites.

I must also mention COL Gladys Gonzalez, Army Medical Corps from the Assistant Secretary of Defense, Office of Reserve Affairs. She was sharp and on top of things. She was also a "center of gravity." There were people who were centers of gravity, people who gathered people around them who were looking for leadership. One of my concerns is that I do not know all of the people that should be talked about.

One person we really need to mention is RDML [John] Mateczun who was on-site and invaluable. He was also physically heroic at a time when the building was unstable and the situation was fluid. He provided me with

Photo by PhC Eric J. Tilford

invaluable information as to what was going on at the upper levels and he was there to provide some form of verification or legitimacy to the operation.

LGEN [James] Peake [Army Surgeon General] was on-site showing the flag through his command. The Sergeant Major of the Army was there when I asked for stretcher-bearers, thinking we were going to bring people out. He was tireless in his efforts rounding up his troops. The medical teams functioned fabulously well.

Frost: People commented on how well organized the people from the Navy Yard were. They stayed on until about 4 o'clock in the afternoon when we were consolidating the medical assets. When it became obvious that they were not needed, half stayed anyway as a reserve in case of a catastrophe with the fire crews.

Feerick: Throughout the evening I had been cutting back our forces to basically just one team from Walter Reed. The Navy assets finally went home in the morning when they reported to their clinic. CAPT Frost and I remained on scene until relieved by RDML Mateczun. And it was pretty much 24-hours, at which time we went back to BUMED.

This was not a Navy action. This was Army, Air Force, Navy. It was also civilian. We had civilian and military personnel with no medical training at all on-site who instead of running in the other direction ran to where they were needed, and in the face of hideously wounded and burned people. They showed the courage necessary to stand by and do what they could. Everybody acted up to their level of skill and far beyond it. At that point, rank did not matter. The people who knew the job and had a job did their job. Other people assisted them. It was the natural selection process. Many senior officers took a back seat to someone who was a better organizer. Many officers took direction from senior enlisted people who happened to have medical training when they did not. I had a Marine—a colonel or a brigadier general—show up in the tunnel and say, "Show me how to carry stretchers, show me how to start IVs. Give me a job." People did not care about rank and they did not care if they were trained or not. When everybody was running away they went toward. ❑

Crisis Ministry

CAPT Jane F. Vieira, CHC, USN

It was a day like none other. A clear blue late summer's day. Not a cloud in the sky. Perfect temperature. The Navy Surgeon General, VADM Mike Cowan, was holding his weekly line-up with his senior staff. Suddenly, he was handed a note by CAPT Ryland Dodge, BUMED Public Affairs Officer. He looked stunned. "This is a dark day for America," he said. "The World Trade Center towers have been struck, each by a different plane, and it is believed to be a terrorist attack. This meeting is now terminated. You all have work to do. Go to your office and prepare how Navy medicine can respond."

Without words everyone rushed to their offices. I too hurried to mine, gathered my staff, and began making preparations as we tried to gather facts about the World Trade Center from the radio. Suddenly we heard an explosion. It sounded close. Within minutes, we knew it was the Pentagon just a mile away. Black smoke billowed from its southern side. Sirens, dozens of them, began sounding. Two smaller explosions followed. A radio commentator announced a car bomb had detonated at the State Department across the street from BUMED headquarters. Later we learned it was not a car bomb but two fuselage explosions emanating from the Boeing 757 which had just crashed into the Pentagon. All federal buildings were ordered evacuated immediately. More explosions were feared. Fighter planes began circling over our nation's capital.

All streets leading to the Pentagon were secured by police. Sirens sounded from every direction. I reported to the National Naval Medical Center in Bethesda to assist my chaplain colleagues with casualties. Briefing and status meetings were held every hour as preparations were made to deploy the hospital ship *Comfort* to New York City to assist local trauma centers. We waited, but no casualties came. It soon became apparent there were more dead than medically wounded at the Pentagon. Seventy-four patients were rescued and sent to local burn and trauma centers.

Within hours of the attacks, USNS *Comfort* (T-AH 20) was deployed to New York City to support rescue and recovery efforts in lower Manhattan. LCDR Salvador Aguilera and LT David Stroud, chaplains from NNMC Bethesda, were on board. For the next 20 days they provided a ministry of pastoral crisis intervention and pastoral presence to hundreds of exhausted firefighters, police, and recovery workers at the World Trade Center site.

By evening on September 11th all chaplains in the Washington, DC, area were ordered to the Navy Chief of Chaplains Office at the Navy Annex beside the Pentagon to join Casualty Assistance Calls Officer (CACO) Teams in making 46 death or missing person notifications before midnight. This was only the beginning. Estimates ranged from 100 to 800 casualties. Navy chaplains, active and reserve, throughout the National Capital Region responded to the call and were sent out in waves from the Chief of Chaplains Office to do the hard job of notifying frightened and stunned families.

I was designated as one of six chaplains to stand the night shift at the disaster site at the Pentagon. We reported to the Chaplain Operations tent directly in front of the blast site where Chaplain Randy Cash, from headquarters USMC, and I were assigned to the inner courtyard. Throughout the night Chaplain Cash and I provided pastoral crisis intervention and ministry of presence to firefighters, emergency rescue teams, and recovery workers.

"It was a sticky fire," the firefighters said, "burning deep in the rubble. Hard to extinguish." They had never seen a building built as solidly as the Pentagon which was compartmentalized like a ship and made as solid as pure granite. This large jet plane traveling at 345 mph only penetrated the outer three of five rings. The inner two remained intact, and the damage was localized as they had never seen before.

Michael W. Pendergrass/ U.S. Navy

Firefighters hang the American Flag over the side of the Pentagon as U.S. Marines salute.

"Did the people suffer?" we wondered. The firefighters speculated the passengers in the plane and those in the immediate area of impact met their deaths instantly. "Faster than you can blink," they said. The force of impact and heat of the explosion would have made for a quick death. At that moment, this knowledge was comforting. The ones who suffered were the ones on the periphery, those in the immediate vicinity caught by the edges of the explosion. Among these were the 74 patients transferred to local burn and trauma units.

For the next several days the Pentagon became my place of ministry. Never in my life did I ever imagine I would be wearing camouflage utilities to my job at BUMED headquarters in Washington, DC. But then, never did I ever imagine Air Force fighter planes patrolling the skies over our nation's capital—not in search of incoming missiles, but on alert for commercial airliners turned into human missiles by hijackers.

Chaplains working at the Pentagon disaster site served in various capacities. We worked with recovery teams, at the mortuary, decontamination tent, and Chaplain Operations tent providing pastoral support, critical incident stress defusion, and prayer. Three chaplains served with each recovery team whose job it was to recover human remains from the wreckage. Each body we recovered received three blessings from three chaplains. One was stationed inside the wreckage, a second at the base of the reefer (refrigerator) truck, and a third inside the reefer truck itself. My post was inside the reefer truck as one of six stretcher bearers, a doctor, nurse, EMT, two stretcher bearers, and myself as chaplain. The doctor opened each body bag, examined the remains, and made the death pronouncement. We tried to bring as much honor and dignity to the dead as possible and treated each of the remains as sacred. Since most bodies were charred beyond recognition and some were just body parts, we did not know for whom we were praying. Many were totally indistinguishable. Some had missing limbs and other bags had just limbs. Later I thought to myself we might even have blessed the terrorists. All the dead were treated equally with dignity and honor.

Chaplains were present for two reasons. First, we wanted to provide dignity and honor to the dead. Chaplains of different faiths provided different blessings. We did not know who the deceased were or what faith they were, but we provided a quiet, dignified prayer that would give honor to the person we were holding and treat their remains as sacred. Second, we were there to provide moral support to the people involved in the recovery efforts. As we worked with the recovery workers, lifted the bodies, and carried them into the refrigerator truck, the recovery team drew strength from this, seeing that a chaplain was with them.

I went back to the Pentagon on succeeding days wearing camouflage utilities, which had been established as the required uniform, and worked jointly with Army and Air Force chaplains. On one occasion I was assigned to the decontamination tent where the recovery teams, firefighters, and FBI workers were emerging from the wreckage and had to be washed down to prevent disease. Ministry here involved talking with them as they came out. Some asked me to pray with them. I actually set up a little customer service counter and had all the things they needed all laid out. Everybody started coming to my table. They would come up and I would say, "How can I serve you? What can I get for you?" The recovery workers allowed me to minister to them in simple ways, by opening up a handy-wipe package or handing them a tissue or baby wipe used to clean masks. These small things caused them to open up and share what they were going through. I believe they felt served and cared for in these simple acts. Hence, recovery workers, firefighters, FBI agents, and demolition workers began flocking to this customer service table to get their masks cleaned, allowing me to take care of them and minister to them, resulting in a significant opportunity for ministry throughout day.

Working beside chaplains of other faiths and services providing ministry at such a critical moment in our nation's history was a tremendous experience and a great honor. Reflecting back on this experience, I believe we have not begun to realize the magnitude of this tragedy. It is a turning point for our country, not only in terms of being prepared for the unexpected but also in terms of our psychological preparedness. We were never prepared for this unexpected event psychologically, and in other ways have lost our naivete as a young nation. However, I truly believe our nation will not only come through this but will come through stronger and wiser, more compassionate, with a sense of justice and equality, and with a unity in diversity we never have known before.

As much as it has been a tragedy, it also has been a significant teaching moment for our country, causing us to reaffirm our values and priorities. Our country is not represented by buildings, whether they are the World Trade Center or the Pentagon. People who do not understand America might think these financial and military symbols are America's god, but these are not our god. Our God is in the spirit represented in people of heroic proportions, in their goodness, love, compassion, and respect for differences exquisitely exemplified in the firefighters who raced into a burning, crumbling building without considering the color, race, or creed of the people they were running to save. It is in the rescue and recovery workers at the Pentagon who did the same and pulled people to safety from under burning desks and out from burning rooms, through toxic fumes and smoke. Finally, it is in the tremendous outpouring of the American people in response to this tragedy and their resolve. This is the spirit and foundation of America. ❑

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Crisis Ministry on a CACO Team and at the Family Assistance Center

LCDR Brad Telleen, CHC, USN

I will never forget where I was the morning of 11 September 2001, or the memory of watching black smoke rise from the Pentagon as it burned across the Potomac. When the day began, little did I imagine I would be called to the Navy Chief of Chaplains office later that night to begin the grim and difficult task of notifying family members that their loved one was not accounted for after the crash of an American Airlines jetliner into the southwest side of the Pentagon earlier that day. CACO (Casualty Assistance Call Officer) calls are always a very difficult, but the fact that so many had died and that so many in our military and civilian community were affected was numbing.

Once mustered at the Chief of Chaplains office, we were moved as needed to Naval District Washington headquarters (NDW) where we were assigned to a CACO team. A team consists of a CACO officer, command representative, chaplain, and driver. The cooperation and teamwork of the many different players who organized and cared in the midst of a very difficult task impressed me deeply. To make matters even more pressing was the need to meet with a family member before the media began knocking on their doors.

Before departure from NDW, CACO teams were briefed by a public affairs officer on how to work with the media if encountered, and a legal officer to answer questions and clarify areas of uncertainty. Unlike other CACO calls in which I have been involved, every chaplain to whom I spoke found the family knew what had happened and expected the CACO call. The family reactions I encountered were cautious hope, while other chaplains encountered numbness, disbelief, and even rage.

Following my days assigned to a CACO team, I volunteered to serve at the DOD's Family Assistance Center located at the Sheraton Hotel in the Crystal City area of Arlington, VA, 5 minutes from the Pentagon. I had heard the center was the hub of family support and resources for the disaster. That was an understatement. When I arrived at the center, I was greeted at the front door by personnel assigned to direct family members to the check-in table on the second deck, where they were logged in and their immediate needs assessed. Once that occurred, they were either directed or personally escorted to the locations where their needs could be immediately addressed.

The Family Assistance Center was set up as a "One Stop Shopping" site, which it was in every sense. Whatever family members needed as far as guidance, comfort, and counsel could be found there 24 hours a day, 7 days a week. The center provided many essential resources for family members such as chaplains, counselors, benefits, and compensations advisors for both military and civilians, financial, legal, and lodging assistance; the American Red Cross, Salvation Army, Stress and Love Dogs provided by Therapy Dogs International; American Airlines representatives, Social Security, insurance rep-

resentatives, "Comfort Quilts" for the little children who lost a parent, phone banks manned by counselors, and many other resources. The Center's director, Army LGEN John Van Alstyne, Deputy Assistant Secretary of Defense for Military Personnel Policy, led two daily briefings which kept grieving family members and staff manning the center informed of the latest news and decisions from the Pentagon recovery site. Enough cannot be said about the sensitive, direct, and honest manner in which LGEN Van Alstyne led the daily briefings, met one on one with family members, and set the tone in the center as a safe place to come for help and to grieve.

Personally for me, one of the most emotionally moving areas of the assistance center was in the ballroom. Along the ballroom walls, memorial tables had been set up with family pictures of those who lost their lives, poems of love, and tributes from spouses and children, along with personal items whose special meaning was known only to the family. So many lives cut short! To look at the pictures and to read the words of love and admiration placed on display was truly a humbling experience.

Professionally, I was greatly encouraged to work with fellow chaplains from the Army and Air Force. To see the commitment to the pastoral care of the grieving families and staff members working at the Assistance Center, no matter what service or faith background, was energizing. Active duty or Reserve, it did not matter; we were all chaplains with one purpose and goal ... comfort the grief-stricken and broken-hearted.

I will never be the same. September 11, 2001 changed the way I view ministry, joint pastoral operations, and the hugs of my wife and daughters. ❑

LCDR Telleen is deputy to the Special Assistant for Pastoral Care, (MED-00G), Bureau of Medicine and Surgery, Washington, DC.

September 11, 2001 will forever live in the collective emotion of our country. Every American will remember where they were that tragic day. I was waiting at the south side of the Pentagon for a 0940 bus to Bolling AFB. Upon stepping aboard, I saw through the corner of my eye what appeared to be the tail of a plane, then a loud rumble, and then a hot wind that shook us all and the bus. The driver, out of instinct, floored the bus. I still could not believe my eyes, and had to ask other passengers if indeed it was a plane.

It took me 45 minutes to get the shakes out. Then I thought of the many friends and colleagues I had in that building. One is an Episcopalian chaplain who entered the building as I left; I found out later he was okay. We commute together and, although I only knew him for 2 weeks, I was worried about him.

Since that day, I have been engrossed in my studies at the Joint Military Intelligence College and, when not studying, serving the Defense Intelligence Agency and other DOD activities as an Arabic linguist and Mid-East advisor. I have also been busy higlighting books on the Taliban and Islamic radicalism for several journals like the *Foreign Area Officers Journal* and *Army War College Journal Military Review*.

LT Youssef Aboul-Enein, MSC, USN

Many folks ask me if I have experienced any harrassment as an Arab-American. I can only recount a story that sums up my feelings. Taking the Metro daily, I encountered a World War II Army veteran. Looking over my khakis and name tag, he came up to me and said, "I know you are an Arab-American, and I want to thank you for serving our country. The gentleman then recounted his service in the Construction Battalions of World War II and wished he was younger to serve again in this fight. While taking the subway, many ordinary citizens say, "Good Morning. Go get'em lieutenant" and other words that are simply moving.

It makes this Arab darn proud to be an American, and to join with others in getting down to the business of combating the scourge of humanity called terrorism. ❑

—LT Youssef Aboul-Enein, MSC, USN is studying at the Joint Military Intelligence College in Washington DC. He speaks two dialects of Arabic and grew up in Egypt and Saudi Arabia. He is a designated Middle-East Foreign Area Officer.

Pentagon Rescuer

LCDR David Tarantino, MC, USN, is a flight surgeon and family practice physician. Assigned to the Secretary of Defense in the Office of Peacekeeping and Humanitarian Affairs, Dr. Tarantino became a rescuer during the 11 September terrorist attack on the Pentagon. Below are excerpts from an interview conducted by Dr. Gary Weir and CDR Mike McDaniel of the Naval Historical Center on 25 September.

It was a normal day. I reported to work, started logging into the computer, checking emails, taking phone calls, talking with the office about what was going on. Then someone heard about the happenings at the World Trade Center—the first plane. We were able to watch the live video and started hearing the reports. Then we saw the footage of the second aircraft coming into the second tower.

It did not seem like it was too much longer after that when we felt a violent shudder and a loud explosion. We looked at each other and pretty much made the implicit assumption that we were under some sort of attack. Everyone said, "We better get out of here; we gotta get out of here!" So we started heading out. Obviously, a lot of people in the corridors were evacuating as well.

I stopped and thought, "Well, I obviously have medical training. Perhaps I should go to the site and see if there were some injured people around." I went down the 4th Corridor, a long corridor that goes from the inner courtyard to the outer court. It was full of smoke from ceiling to floor. There were some walking wounded coming out. People were saying there were injured people down there. I grabbed some paper towels, moistened them, and started heading down there. You literally had to crawl on your belly. Even on your hands and knees you could barely breathe, the smoke was so thick. I crawled, feeling along the wall, and was able to assist getting some people out to the inner courtyard. I do not know if they thought to come to the inner courtyard or they were injured, dazed, and confused.

I went back in and found myself in the open air space between the B and the C Ring on the inner aspect of the C Ring between the 4th and 5th Corridors. There was a big exploded hole in the wall that was pouring out thick black smoke, and there was a big plane tire sitting there, and evidence of human remains. I heard cries for help from inside this wall. This was not an exit through which people could come. The doors, 20 yards either way, were spewing out black smoke. A couple of people exited from there.

But [then] we heard these cries in there from people who were trapped. So a few of us—four or five people—grabbed fire extinguishers and started fighting our way in through this exploded breach.

We made a serpentine path through there throwing out some debris, spraying back the fire. And as we did that, we came into a space where two Navy personnel were trapped and very close to succumbing to smoke and flames. We were able to get them out through this makeshift passageway. They would certainly have perished in there not aware there was a possibility of an exit.

Then they told CAPT Dave Thomas and me that there were more people in there so we continued on in further. There were live electrical wires in this area. I got shocked twice. It was so hot the debris was melting and dripping onto my skin, searing it and melting my uniform. We went a little further, turned a corner, and came into this bombed out office space that was a roaring inferno of destruction, smoke, flames, and intense heat. You could feel it searing your face. We thought we heard something off to the right. Dave Thomas or someone handed me a flashlight. I shined it through this little opening and saw the bruised and bloody head of a gentleman who was leaning back saying, "Help me. Help me."

I had a moistened Tee-shirt I was using to beat back the flames a little bit. I threw it into him and told him to breathe through that. I then told him he had to get out of there. There were secondary explosions going on. The structure was collapsing. Stuff was falling from the ceiling. The flames were approaching and he was pinned by this debris that was on fire. On one side of him there were no flames but the other side was all flames. He did not have very long at all and it looked like he was drifting in and out of consciousness from his injuries or oxygen deprivation.

We tried to free some of the debris from where we were but it really could not be done. So I crawled along on my belly and hands and knees over the debris into the space where he was. It was a very small cramped

space. I said, "I am a doctor. We are going get you out of here, but you have got to help yourself. You have got to fight your way out."

He said, "I can't. I'm pinned. I've been trying and trying. I can't move."

I tried to pull him. I tried to push. There was nothing I could do. I, myself, was very close to succumbing to the smoke and fumes, and I do not know how he was even still alive because he had been there for awhile and was losing strength quickly. Out of desperation, I lay on my back underneath him and put my feet up on the pile of debris over his head. I leg-pressed up as hard as I could and was able to raise it a few inches, just enough to free him a little bit so he could start to wriggle free. I grabbed him; he grabbed on to me and I pulled him out right through my legs. I told him not to knock my legs because I did not want the debris to come back down again. As he crawled right over my body, and we were almost face to face, I said, "Is there anyone else in here?"

"Yes, I think there are others." I was very distressed to hear that. I then pushed him on past me out to where CAPT Thomas grabbed him and escorted him outside.

Hearing that there might be others, I still held up the debris and yelled, "Is there anyone else in here? Is there anyone else in here?" After not hearing anyone, I lowered the debris, hoping it would stop, and it did. I then rolled over and crawled my way out, coughing, retching, and trying to catch my breath. A few people were standing about. They had already taken Jerry Henson to the courtyard. He was the victim, a retired Navy captain. It seemed like less than 60 seconds before that whole space was just engulfed in smoke and flames going all the way up the side of the building.

I gathered myself and went into the courtyard where there were a few casualties. Some medical personnel from the clinic had brought up some medical supplies and there was a corpsman attending to Mr. Henson. I went in and assisted getting some oxygen started on him, starting some IVs, getting some fluids going, taking his vital signs, and triaging the few casualties that were there. I determined that Mr. Henson was the worst off, mostly from respiratory distress. We ensured that he was loaded first on an ambulance and sent him on his way.

I went back to the scene where we had been, hoping the fire crews would arrive and maybe we could rescue some more people. They arrived not too long after but were unable to penetrate any of these spaces, even with their protective gear. By then, conditions had really deteriorated and they could not go in. We kept waiting and hoping there might be more people to assist but it did not turn out to be the case. ❑

Meanwhile, out at Bremerton ...

"Triage" to the Streets

Following the events of 11 September, Naval Hospital Bremerton responded with increased security and severely restricted base access. Staff and patients alike sat in a line of cars that wrapped back from the gate and snaked up Austin Drive.

Hospital officials knew it was a potentially dangerous situation, but their concern went beyond automobiles. In quickly called meetings the morning of the 11th, the executive team huddled to discuss patient safety. They knew that somewhere in that line of cars could, quite literally, be a heart attack waiting to happen. From experience, health care professionals knew that people experiencing chest pains or other serious symptoms, often drive themselves to the hospital. They realized that someone with an acute condition could be in distress—and waiting in that line.

That is when HMCS Roger Campanelli raised his hand. "Give it to us," he said. The decision was made to use the expertise of the independent duty corpsmen.

While security forces inspected under hoods, in trunks, briefcases and bags, the highly trained IDCs took their talents to the streets checking on the wellbeing of people inside those vehicles. After only a short discussion, it could be determined if the person needed to be moved to the head of the line for urgent attention or could be re-scheduled.

"We were like Wal-Mart greeters," Campanelli said. "You know, 'welcome to the hospital. How can we help?'"

By Friday, things were moving more smoothly as normalcy resumed. Family member Janice Lounsbery was in the still considerably long line. "I saw him up ahead, speaking with each driver and then sometimes the car would pull out and leave," she said. "I had just been listening to the radio, to the moment of silence, and I was pretty emotional. I was crying. This man in khakis came up to me with a big smile and said 'Hello ma'am, how can we help you today!' He was so pleasant and it was just so unexpected. I told him I needed to pick up a refill. He told me 'Ma'am, that is one of the easiest things to do today,' and he just waved me through to a special line. It was all just personal service all the way around. When I got to the sentry he made eye contact and was so polite, even the young woman at the gate made eye contact as she waved me on. But that chief deserves a pat on the back."

Not all situations were that easy. HMCS Michael Slentz said he dealt with a woman in labor, a child with a 103.6 temperature, and an ambulance escorting a man with chest pain.

Lessons have been learned, Slentz, the IDC Program Manager, said. "I have established a special IDC Front Gate watch bill that will go into effect whenever the commanding officer, executive officer and command master chief determine that a back-up at the gate has created a potentially hazardous situation for our patients," he said.

If that occasion arises again, those "men in khakis," (known more commonly as "docs" in shipboard settings), Senior Chiefs Michael Slentz, Lonny Coleman, Roger Campanelli and Brad Lipert, and HMC Dan Ackerman, will be out there again doing their own style of "surveillance" right alongside the security crews, reaffirming Naval Hospital Bremerton's commitment to top quality care, whatever the circumstances. ❑

—Story by Judith Robertson, Naval Hospital Bremerton Public Affairs.

Photo by Judith Robertson

HMCS Roger Campanelli speaks with Nina King-Madlem as she waits at the entrance to the Naval Hospital. The IDC was part of a team taking the situational pulse of patients to assure no emergency was unattended. Behind him, MS2 Douglas McKay, assigned with the hospital security force, checks for proper identification.

USS *Cole*

A Case Study in Terrorism and Medical Perspectives

CAPT Jesse H. Monestersky, MC, USNR

USS *Cole*.

The suicide bombing of the USS *Cole* (DDG-67) on 12 October 2000 is one of many terrorist actions committed against American property and American nationals. This tragedy commanded the Navy to re-examine its doctrine on force protection and port security.

This attack was an American naval peacetime disaster. As a nation, we also remember the Navy tragedy that occurred a little more than a century earlier.

On the evening of 15 February 1898, the 3-year-old battleship *Maine* was blown up and sunk in Havana Harbor. A majority of the vessel's crew—266 officers and men—died. The incident was blamed on the Spanish, though sabotage was never conclusively proven. A later investigation showed some evidence that the explosion might have been due to a coal-dust explosion in the ship's bunkers or a mine fastened to the hull.

Terrorism has become a frequent occurrence over the past decade, culminating in the events of 11 September. In fact, it is now considered to have become a "persistent disease," in the words of Secretary of State Colin Powell. It leads to catastrophic injuries, loss of life, public fear, and the need for increased vigilance to minimize its risk of occurrence.

Disaster Medicine

Disasters can be categorized as **man-made** such as the reactor power facility explosion at Chernobyl, Ukraine, on 25 April 1986; **natural** such as a series of three earthquakes in San Salvador, El Salvador, 13 January, and 13 and 20 February 2001; **intentional**, the truck bombing at Khobar Towers in Dhahran, Saudi Arabia, 15 June 1996; and **accidental**, the Halloween party fire at a discotheque in Gothenburg Sweden, 31 October 1998.

Medicine has evolved to deal with mass casualties and triage, under the rubric of disaster management medicine.

Civilian medicine has borrowed these principles from military war medicine. Its spectrum covers the entire disaster from the scene to the hospital bed, plus disaster prevention and disaster preparedness activities. The principles remain similar, regardless of the cause, and whether civilian or military.

The bombing of the *Cole* is an excellent case study of terrorism, with military and civilian medical and security assets cooperating to assist the victims, and later sharing hard lessons learned.

Yemen

The location of this terrorist target of opportunity was the country of Yemen. The terrorists seeking their target in the Port of Aden knew the ship was vulnerable, that they could plan undisturbed by local authorities, and the health care sector would be caught unprepared.

Most of Yemen's population lives in rural rather than urban areas. The


U.S. Government Photo

government effectively maintains law and order in the larger cities, but has difficulty containing rural tribal conflicts and in controlling terrorism, especially kidnappings. Because the borders are porous and subject to dispute, entry of terrorists is not difficult.

Yemen, an exotic locale, and far off the beaten path for the adventurous traveler, is unknown to many Westerners. The people are friendly and colorful. Chewing the leaves of a green plant—qat—is the national pastime. The women totally cover themselves with the *sharshef* and wear a veil called a *lithma*. The men wear a shirt called a *maouz* and headwear known as a *shall* or *qutra*. The men also wear a jambiyd, the traditional curved dagger. Many also carry the Russian/Chinese Kalashnikov AK-47 assault rifle. Purportedly, there are 53 million guns, about three per Yemeni!

City of Aden

Aden is on the southern tip of the Arabian Peninsula on the Gulf of Aden. It is the second largest city after Sanaa, and was previously the national capital of southern Yemen, until November 1989, when an agreement was signed unifying south Yemen (The People's Democratic Republic of Yemen) with north Yemen (Yemen Arab Republic). Sanaa subsequently became the national capital of the united country.

Aden is known as an important economic and commercial center for the country, and as a refueling stop for ships. Aden is not only an important shipping corridor but also a choke point.

Port of Aden

At the height of its usage in the 1950s and 60s, approximately 7,000 ships made port calls each year. But the numbers fell off greatly during Yemen's civil wars and as its reputation grew as a country condoning terrorism. The city is attempting to recapture its shipping trade. The Yemeni government is investing $580 million into projects to reestablish Aden as a world-class international container terminal and shipping hub.

The advantage of this port is its strategic location in proximity to the Red Sea, Persian Gulf, Arabian Gulf, and Indian Ocean. Its regional markets include East Africa, Middle East, India, and Europe. It has an excellent natural harbor and a large cheap labor force. But the downside is the need for the government to address security problems and low-level violent crime around the port. It is a necessary port of call for commercial and naval ships for refueling, with possible alternatives for the U.S. Navy being nearby Djibouti City, Djibouti across the Gulf of Aden, and Massawa, Eritrea across the Red Sea.

Attack on the *Cole*

Two suicide bombers perpetrated the attack on the *Cole* at 1118 on 12 October 2000 during a routine refueling operation in the Port of Aden. A large quantity of explosives, estimated at between 400 and 600 pounds, ripped a 40-foot by 50-foot gash in the portside hull, crippling the vessel. The *Cole* had been on a regularly scheduled 6-month deployment, departing Norfolk on 8 August with a scheduled return on 21 December 2000. It had been on its way to join the 5th Fleet, to be on station in the Persian Gulf. It was in transit, steaming alone, from the Red Sea to a port visit in Bahrain, when it made a BSF (brief stop for fuel), an approximate 6-hour "gas and go." U.S. Navy ships had been using the Port of Aden as a refueling base monthly for the past 2 years. Because of the low-level state of security awareness, the terrorists practiced their plan months in advance and carried it out relatively easily.

A 35-foot white skiff approached the *Cole* from the port side and looked friendly. One of the skiff's two operators waved at the watchstanders and crew. In fact, the crew mistook them for trashmen. Then, without warning, a bomb hidden in the skiff detonated. Eyewitnesses recalled a blast, acrid smoke, and finally darkness.

The medical consequences of the explosion were 17 dead and 39 injured out of a crew of 251 men and 44 women. The damage to the ship was tremendous. The keel was nearly broken amidships by the blast, and several decks collapsed at the blast site. Surprisingly, the ship's superstructure remained intact. This $1 billion, 9,100 ton, 500-foot Arleigh Burke class destroyer sustained damage estimated at $240 million. Ironically, the consequences could have been significantly worse. First, the ship had been pumping aboard 2,200 gal/min of high-test fuel. Second, aft of the explosion site was the ammunition room. Third, there were no fires or secondary explosions.

Mitigating against a graver outcome were a number of factors. The crew reacted swiftly, instituting damage control measures (shoring, pumping, and repairing the ship) and saving its injured. Assets ashore also responded quickly for rescue of the wounded. American warships steamed toward Aden, and a Marine Corps FAST team (Fleet Anti-terrorism Security Team) detachment flew in from the 5th fleet Headquarters in

Bahrain for security. Navy teams with heavy equipment were expeditiously brought in to survey the damage and patch the ship.

Medical Management and Evacuation of the Wounded

Initially, the ship's crew provided self-aid and buddy-aid to the wounded, led by a chief independent duty corpsman and ship's command master chief who happened to be a master chief hospital corpsman, with junior corpsmen assisting. Triaging was done on the ship's fantail, as the crew's mess, the designated mass casualty area, was severely damaged. The vessel's medical department, which was across from the blast, was also damaged.

Triage and first-responder efforts were well done, despite the 100ºF weather. The crew performed admirably considering the conditions under which they worked. The ship had just been attacked; crewmates had been lost; the normal triage area had been destroyed; there was the potential for fire; there was no ship's power, no communications, and no water; and a second attack remained a distinct possibility. Furthermore, the crew was "doubly impacted", they were both victims and emergency responders. Many showed great resiliency under very difficult circumstances. Navy training dogma—"save the ship, save your shipmates, and save yourself"—paid off for the *Cole*.

A major problem experienced in the aftermath of the explosion was transferring the injured off the ship onto the concrete refueling depot known as a "dolphin". This structure was in the harbor against which the ship was tethered. The casualties then had to be transferred ashore to the closest pier.

A ladder was obtained and wire-basket litters lowered over the ladder. The three most serious casualties were taken directly aboard a tourist boat, then to the EFZ (Economic Free Zone Container Terminal), and then to an awaiting ambulance. Most patients were ferried by boats (tourist, refueling group boat, and government launch) from the dolphin to the EFZ, a distance of about 300 meters (line of sight) but about one kilometer by boat. The off-loading from the ship of the most seriously injured took about an hour and a half and was well coordinated despite makeshift ladders and stretchers, and initially limited boats and land vehicles.

Patient transfer to the local hospitals was one per ambulance because the ambulances were too small for the large ship's litters. There were five to seven ambulances for serious casualties, and privately owned vehicles—autos, trucks, and de-mining vehicles—for other patients. Ambulance care was extraordinary despite the circumstances under which patient movement was conducted: difficulty in evacuation from the ship and off the dolphin, language barriers, ambulances of small size and limited numbers, misfit of large litters, large numbers of casualties, and limited training of emergency response personnel ashore.

Local Hospitals

All victims were initially taken to Saber Hospital, as it was initially thought there were only 20 casualties. Keeping the roads open from the port to the hospital, with only movement of security and rescue vehicles, was somewhat problematic in a country where erratic driving and lack of adherence to road rules is the norm! Saber's ambulances were basic responder level and were used for litter patients. De-mining vehicles carried ambulatory patients. The *Cole*'s navigator went to Saber, and served as a name-taker (a medical regulating function) and ship's representative.

Thirty patients quickly overwhelmed Saber Hospital, a new 58-bed private facility. Nine remaining patients were moved to Al-Jamhouria Hospital, an older 513-bed public teaching institution. Of the nine, two were surgical cases with multi-organ injuries; one died post-operatively, and another survived surgery and a trip home to CONUS.

Both hospitals did their very best under the most difficult circumstances. Hampering their response capability were a limited number of surgical staff, no recall capability, and too many patients. Some significant injuries such as femur fracture, CSF rhinorrhea, and shock lung were inadvertently missed.

American Embassy Sanaa Health Unit Staff Activities

Soon after the explosion, the U.S. Defense Attaché (DAO), who happened to be in Aden along with his Army attaché, called the Embassy in Sanaa and the Health Unit. The Health Unit staff (physician and nurse) was requested to render assistance in Aden. Personnel on-scene asked that we bring supplies to handle massive burns and amputations. As was later found, this was an exaggerated initial impression of the extent of injuries, a frequent occurrence in a mass casualty situation.

The consequence was that time was spent assembling supplies that were not necessary. The Yemeni Air Force furnished an aircraft to transport the Health Unit staff and supplies, as there was no commercial flight available.

We arrived early evening and initially visited Al-Jamhouria Hospital, where we evaluated the eight patients, compiled a triage list, met medical staff, and the hospital medical direc-

tor. After about an hour, we moved on to Saber Hospital and evaluated all 25 patients and again made a patient list of names and injuries, prioritizing them for a medevac, and met key staff. Civilian chaplains serving in Yemen also assisted patients.

As the staffs of both hospitals were overwhelmed, we assisted in looking for missed injuries, and thus facilitated additional care. The staffs of both hospitals were most receptive to additional help.

Our military contacted Ramstein Air Base Theater Patient Movement Center to mobilize American air and medical/surgical assets. These dialogues with Ramstein, while critical in passing on information regarding casualties and the level of response required, were time consuming and competed with triage activities.

Ironically, these dialogues did not lead to a timely mobilization of assets from Ramstein. Ramstein is 2,900 nautical miles distant from Aden, while, nearby Djibouti was less than an hour away by air. Our Defense Attaché, in communication with the U.S. Liaison Officer at American Embassy Djibouti, Chargé American Embassy Sanaa, and in concert with the French Military Attaché Sanaa, orchestrated an effort to mobilize French aeromedical assets out of Djibouti, rather than wait for American help. It was decided that the French medical/surgical and aeromedical assets out of Djibouti would save a tremendous amount of time and potentially save lives.

About 2 1/2 hours after our arrival, a French surgical team, consisting of an anesthesiologist and orthopedist, arrived at Saber Hospital. We conducted joint patient rounds, and reviewed the medevac triage list generated by the Health Unit staff. They accepted our patient triage list in total, without second-guessing. One patient pending orthopedic surgery was held for Djibouti instead of Aden.

The Defense Attaché Sanaa and Regional Medical Officer (RMO) Sanaa assisted in coordinating ambulance loading of patients for airport transfer. This commenced near midnight and took about an hour and a half. The process was slow, despite the close distance to the airport—3 km for Saber Hospital and 15 km for Al-Jamhouria. Multiple trips to the airport were required due to limited numbers of ambulances and their small size.

Another contribution of the Health Unit, during a later visit to Aden, was to participate in contingency planning to preplan for future casualties. This planning activity was a successful multi-agency endeavor, including, RMO Sanaa, NAVCENT Surgeon, the CATF Surgeon on USS *Tarawa,* and the FBI trauma physician. Finally, two ships' visits were made by RMO Sanaa, to attend to ship's crewmembers with injuries that might have initially been missed and not seen at the hospitals. As a result, several more crew were later medevaced on flights of convenience. The lesson is to look for occult injuries, as not all the injured will come forward in the aftermath of a disaster, when victims may minimize the extent of their injuries.

French Aeromedical Contributions

The French Air Force out of Djibouti brought in one Transall C-160, a tactical twin engine propeller transport for troops and cargo. It is similar to the American C-130 Hercules. The Transall can be configured to carry 40 wounded, with critical care and medical/surgical assets. It landed fully ready in Aden to receive patients. The French aeromedical crew received a total of 11 patients, 10 from Saber and 1 patient from Al-Jamhouria Hospital, of which, 6 were critical and 5 were serious. The Transall C-160 was, in fact, configured for 40 patients, but the language was misinterpreted to understand that they could only accommodate 14 patients. It was decided not to take the additional three less injured patients from Al-Jamhouria Hospital, due to the criticality of the ones already onboard.

The French stabilized the patients on the airport tarmac. Patient stations had been set up prior to the arrival of the patients from the two local hospitals. Then, the patients were placed on the C-160, with departure at about 0200, and the arrival of the aircraft in Djibouti about 50 minutes later. The patients were then flown directly to Bouffard, Centre Hospitalier des Armées, Djbiouti; six underwent surgery there.

It should be noted as a lesson learned that the French arrived ready to go. Their aircraft supplies were quickly offloaded; they were not palletized like our inventory; and patient aid stations were quickly assembled on the tarmac. Their aircraft was configured for medevac, with true "care in the air" critical care medical capabilities. Overall, they demonstrated speed of response and expert definitive care capabilities.

Bouffard, Centre Hospitalier des Armées, Djibouti

Bouffard French Military Hospital in Djibouti has excellent acute care capabilities, but limited holding capacity. It was later thought that as a result of the French contribution, four additional lives were saved.

The following day, American air assets transferred all 11 Americans in Djibouti to American facilities in Germany. The patients were taken to Air Base Ramstein, Germany for further interventions and stabilization, and

then, ultimately, a C-141 Starlifter transported them from Landstuhl Regional Medical Center to NAS Norfolk and on to Naval Hospital Portsmouth, VA. Also, during the following days, American aircraft dispatched from Ramstein to Aden, took 28 remaining injured crew directly to Germany and 8 to Bahrain for further medical evaluation and treatment.

Cole's Journey Home

The *Cole* was pulled out of Aden Harbor by one ocean-going tug, with its transfer onto the *Blue Marlin*, a Norwegian commercial heavy lift transport ship, for its journey home. The crippled vessel was delivered to Litton Ingalls Shipbuilding facility in Pascagoula, MS. After extensive repairs, the USS *Cole* is scheduled to return to Norfolk in April 2002. Its sailors and officers will be assigned to other commands to assume new duties.

Navy Response to the Cole Attack

Clearly, the Navy has acted to implement a heightening of its ship and port security posture. These measures are an effort to increase force protection and to decrease the vulnerability of our naval vessels.

Positive factors contributing to successes included a well trained ship's crew in first aid and damage control as initial responders, Arabic-English speakers on scene (State and DOD), on-site U.S. Government (USG) personnel assets (de-mining, DAO and Embassy consular officer); transportation capabilities (de-mining program vehicles); communications (radios and cellular phones); geographical area knowledge; knowledge of local medical capabilities by NAVCENT surgeon (Bahrain) and American Embassy Sanaa; available near hospital assets; nearby French medical evacuation capability; Yemeni cooperation (air force, police, army, nurses, and physicians); and Joint Task Force (JTF) and multinational and USG joint agency cooperation. Additional medical assets ultimately on-scene to assist remaining *Cole* crewmembers and additional USG personnel brought in to manage the crisis, in the several weeks after the explosion, included Navy Hospital Sigonella psychiatry Special Intervention Response Team (SIRT) team, NAVCENT Casualty Surgical Augmentation Team (CSAT) medical team (Bahrain), USAF Prince Sultan Air Base (PSAB) "fly away surgical team" (out of Saudi Arabia), and FBI trauma personnel. NAVCENT and FBI personnel conducted daily sick call for all USG personnel, with RMO assistance.

Factors that contributed adversely in the disaster consequence management of the *Cole* included: lack of local host nation trauma surgeons; lack of local host nation mass casualty capability despite civil war experiences; lag in mobilization of American military medical responses from Air Base Ramstein and Saudi Arabia; and time zone differences between the incident OCONUS and CONUS critical decision-makers.

Overall Lessons Learned

How should we improve in the future? Suggested solutions include: engagement with hospitals of host nations [i.e., assist host nations in the region (Yemen, United Arab Emirates, Saudi Arabia, Djibouti, Kenya, and Egypt) with training and realistic practice exercises]; pre-deployed supplies in host nation; secure working agreements with local medical facilities; incorporate host nation support into medical contingency plans; develop a better regional medevac capability; develop true care in the air capability like the French demonstrated; and enhance cooperation between USG agencies (e.g., DOD and State).

Medical practitioners should acquire additional skills to become knowledgeable in all aspects of blast injuries. The range of injuries runs from pneumothorax, visceral injuries, to the fracture of multiple sites (e.g., ribs, femur, ankle, wrist, and jaw), blast lung, facial burns, concussion, and contusion. Practitioners also need to know all their medevac assets and become knowledgeable and practiced in principles of mass casualty and triage medicine.

There are several final "take-home" points. "Crises don't always come to someone else," said Marc Grossman, former Director General, now Undersecretary for Political Affairs at the Department of State. "It can't happen to me" is a myth. Embassies can be front lines, as illustrated by the bombings in East Africa. The case study of the *Cole* demonstrates the complexity of activities and multiple participants in managing a large scale disaster. That is why such an event is called a "complex emergency!" There are important lessons to be learned from any disaster that should be shared. The bottom line is: **Are you ready?**

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Suicide Prevention in the Navy and Marine Corps
Applying the Public Health Model

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The U.S. Surgeon General's *Call to Action to Prevent Suicide* (1999) challenged the nation to address suicide as a serious public health problem. In keeping with the *Call to Action*, the military services have taken significant steps to enhance suicide prevention efforts throughout the Department of Defense (DOD).(*1-4*) In this article, we describe the results of an ongoing organizational assessment and intervention to improve suicide prevention within the Department of the Navy (DON).

Drawing on expertise from both the military and civilian sectors, we discuss current Navy and Marine Corps initiatives related to policy, training, and research. The principles which underlie these initiatives reflect an adaptation of the public health model to the naval services.(*5*) The key elements of this model include: defining the problem, assessing organizational needs and culture, gathering incidence/surveillance data, developing and testing interventions, and implementing interventions (Table 1).

Defining the Problem

Since 1990, suicide has ranked as the second or third leading cause of death for Sailors and Marines. Over the past 10 years, the Navy has averaged 11.9 suicides per 100,000 personnel and the Marine Corps has averaged 15.4 suicides per 100,000. In CY-2000, there were 43 Navy suicides for a rate of 11.7 per 100,000 and 24 cases of suicide in the USMC for a rate of 13.9 per 100,000. From both civilian and military research, we know there are substantial age, gender, and cultural variations associated with both risk and protective factors.(*6-8*) In DON, most suicides occur among white males under age 30. Figure 1 summarizes suicide rate information for all personnel over the past five years. While these rates are below the national average for the civilian population adjusted by age and sex to Navy and Marine Corps, there is clearly room for improvement in our prevention efforts.

To ensure that we benefit from the best practices available from the civilian and military sectors, the Secretary of the Navy (SECNAV) in January 1998, requested a comprehensive assessment of suicide prevention efforts within the Navy and Marine Corps. The assessment was requested in response to concerns about recent incidents of suicide among Navy and Marine Corps personnel, including the suicide death of the Chief of Naval Operations, ADM Jeremy Boorda. The mission as identified by SECNAV was straightforward: identify and imple-

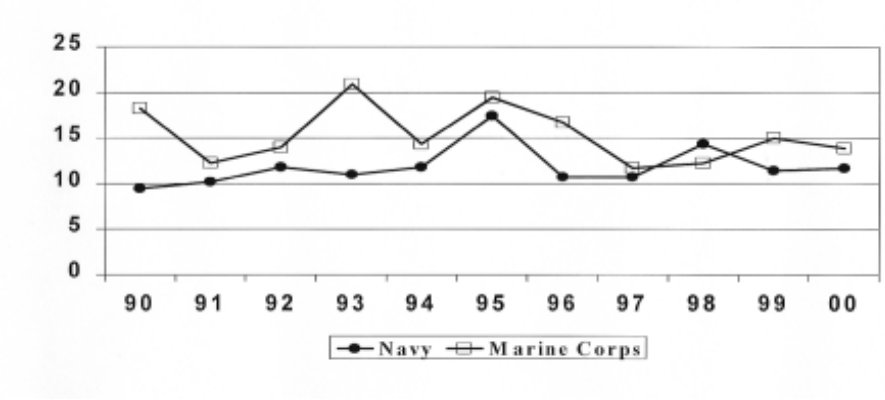

Figure 1: Navy and Marine Corps Suicide Rates - Calendar Years 1990-2000

ment best practice strategies from DOD and civilian sources to reduce suicides in the Navy and Marine Corps.

Assessing Organizational Needs and Culture

As a critical step in assessing organizational needs regarding suicide prevention, we sought the input (via working groups, phone consultations, and written reports) from a variety of stake holders within DON. Our efforts eventually incorporated feedback from a number of DON organizations including:

Office of Assistant Secretary of the Navy (Manpower & Reserve Affairs), Commander Navy Personnel Command (CNPC), Headquarters Marine Corps (HQMC), Bureau of Medicine and Surgery (BUMED), Naval Criminal Investigative Service (NCIS), Navy Environmental Health Center (NEHC), and Naval Health Research Center (NHRC), as well as input from military leaders and medical providers from the Fleet (e.g., Naval Medical Center, San Diego, CA and MCRD Parris Island, SC). To ensure that we obtained best practice information from national experts, we requested an independent external review of our current policies and programs by the American Association of Suicidology.

Table 1. The Public Health Model
Guiding Principles and Practices
1) Defining the problem ➢ **Clarifying the mission** ➢ **Reviewing the literature and seeking consultation**
2) Assessing organizational needs and culture ➢ **Engaging key stake holders** ➢ **Understanding bridges/barriers to care**
3) Gathering incidence/surveillance data ➢ **Creating tools for systematic data collection** ➢ **Identifying risk and protective factors**
4) Developing and testing interventions ➢ **Defining targets for intervention** ➢ **Conducting pilot tests**
5) Implementing interventions ➢ **Conducting evaluations** ➢ **Institutionalizing best practices through policy and training**

On the positive side of the assessment, the basic model of training leaders at all levels to identify at-risk personnel was viewed as sound. Further, independent reviewers commended the military for having a range of services identified by the Centers for Disease Control as important to effective suicide prevention (Table 2).(*8,9*) Building a best practices approach to suicide prevention within DON, however, would require the Navy and Marine Corps to address program limitations related to data collection, training, and policy.

After a thorough review of past and present program initiatives, we concluded that suicide prevention efforts within the DON reflected three phases of program development. Each phase had characteristic approaches to policy, training, and data collection. Phase 1 began in the early 1980's with a decentralized approach to suicide prevention. Navy and Marine Corps commands typically developed their own policies in response to local needs and resources. Phase 2 started in the early 1990's and reflected a movement toward centralized efforts organized under Headquarters direction. At the policy level, Navy and Marine Corps responded to the U.S. Surgeon General's Healthy People 2000 Initiative by giving formal recognition to suicide prevention as a key element of health promotion programming. Both services published instructions that required training for all personnel in suicide awareness. Increased attention to the identification of suicide trends led to the creation of databases to capture information on suicide gestures, attempts, and completions using Personnel Casualty Reports. The expansion of services was also seen in the commitment of commands to offer postvention services after suicides through Special Psychiatric Rapid Intervention Teams (SPRINT) and Critical Incident Stress Debriefing Teams.

The call for a comprehensive assessment of suicide prevention policies and programs by SECNAV in 1998

marked the transition to Phase 3 of the program—the development of an integrated delivery system. Prior to 1998, Navy and Marine Corps suicide prevention activities while generally comparable in scope, tended to reflect the "stovepipes" of the two services. With the comprehensive assessment in view, senior Navy and Marine Corps leaders agreed to create a DON program that would pool information and resources from both services.

As the inputs from various sources were consolidated, a consensus emerged about the priorities for program improvement. Data collection methods were seen as needing improvement through use of up-to-date procedures in risk factor analysis. Once established, such improvements would then set the groundwork to inform future prevention efforts. Additionally, evaluation measures would provide the basis for continuous program improvement. Training throughout DON was seen as needing improvement through use of standardized resources to ensure that all hands receive a consistent message about suicide risk and protective factors and about access to support services. With respect to policy, the consensus was that the Fleet could benefit with a "one-stop" guide that integrates resources available to commands in suicide prevention. These priorities were briefed to the SECNAV in August 1998 and were approved for action.

Gathering Incidence/Surveillance Data

Because quality information is so crucial to developing effective prevention programs, researchers have looked for ways to gather data on suicide incidents. One method for gathering data on suicide risk factors is a forensic procedure called a psychological autopsy.(*10,11*) Psychological autopsies are used in death investigations to help physicians clarify psychological factors that may aid in determining the manner of death.(*12*) NCIS conducts psychological autopsies with the use of a multidisciplinary team of forensic experts. This team is composed of forensic psychologists, forensic science consultants, criminal investigators, and forensic pathologists. The multi-disciplinary team collaborates to objectively evaluate death scene information, physical autopsy and toxicology results, wound analysis, record reviews and psychological data collected through interviews with individuals familiar with the deceased in an attempt to reconstruct the behavior and mind set of the deceased prior to death. The psychological autopsy is speculative in nature, therefore, its reliability and validity are limited by the quality of information obtained during the death investigation and by the knowledge base of the practitioner conducting the assessment.(*13*)

In an effort to improve knowledge about suicide deaths in DOD (1998), a proposal was made recommending that psychological autopsies be performed on all cases of active duty suicide. This proposal generated considerable comment and debate within and between the services. Overall, all services agreed that better information was needed to understand suicide risk factors among military personnel. DON leaders, however, contended that for most cases of active duty suicide, the specialized forensic techniques used in psychological autopsies would be unnecessary and would yield little information of value beyond that already obtained by coroner, police, or Judge Advocate General investigations. Additionally, DON argued that psychological autopsy reports did not provide an efficient means of analyzing data across suicide incidents. To meet the need for systematically collecting and analyzing data on Navy and Marine Corps suicides, DON leaders collaborated on the development of the DON Suicide Incident Report (DONSIR).(*14*)

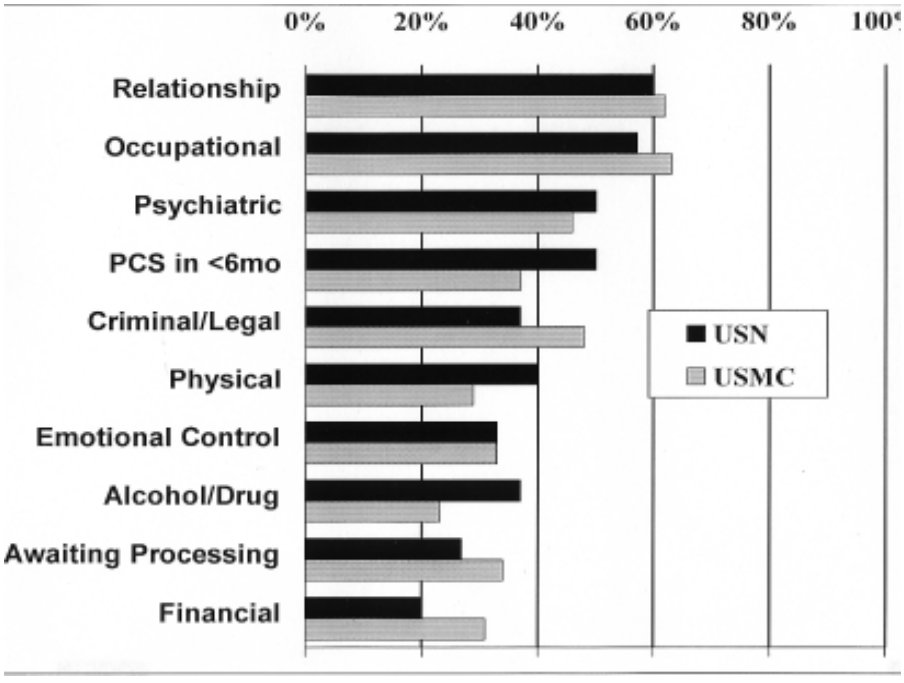

Figure 2: Risk Factor Data 1999-2000

Table 2. Resources in Suicide Prevention	
POLICY:	➢ OPNAVINST 6100.2 (1992); MCO 6200.4A;
AWARENESS:	➢ Headquarters Messages (NAVADMINS, ALMARS,) ➢ Prevention training for all personnel ➢ Command leadership
LIFE SKILLS TRAINING:	➢ Alcohol and drug abuse prevention training ➢ Stress management training ➢ Anger management training ➢ Chaplain's Religious Enrichment Development Operation (CREDO) ➢ Communication and conflict resolution training
LEADERSHIP TRAINING:	➢ Senior leadership program briefs ➢ Suicide prevention training in leadership schools
COUNSELING/ TREATMENT SERVICES:	➢ Family Service Centers/Marine Corps Community Services ➢ Chaplains ➢ Mental Health Services at clinics and Hospitals
POSTVENTION:	➢ Sensitive family support by Casualty Assistance Calls Officer (CACO)/chaplain ➢ Command post-suicide interventions ➢ Special Psychiatric Rapid Intervention Teams (SPRINT) ➢ Critical Event Stress Debriefing
CASUALTY REPORTING & TRACKING:	➢ DON Suicide Incident Report (DONSIR) ➢ Headquarters monitoring and tracking of suicide incidents through Personnel Casualty Reports (PCRs)

The DONSIR standardizes data collection on suicides and captures risk factor data beyond the demographic information currently available on Personnel Casualty Reports. The form was designed to meet DOD requirements for post-suicide assessments and yields "Lessons Learned" to assist further program development. This enables program improvement decisions to be data-driven rather then speculative in nature. The DONSIR assesses suicide risk factors concerning the predisposing vulnerabilities and precipitating situations prior to an individual's death. A total of 513 data fields are analyzed. By providing information on the interplay of developmental vulnerabilities, environmental circumstances, and individual coping skills, the DONSIR yields data that can be used to inform future DON suicide prevention efforts. The instrument was implemented in January 1999. Figure 2 provides an overview of DONSIR risk factor data from calendar years 1999 and 2000.

Continued funding of the DONSIR, will assist DON in building an evidence-based approach to prevention programming. The long range plan is to incorporate the DONSIR into the Casualty Procedures Manual as a follow-up requirement to initial casualty messages. Within DOD, a consensus has now emerged on the importance of collecting similar information on all active duty suicides.

Developing and Testing Interventions

Civilian research indicates that over 80 percent of those who commit suicide give some indication of their suicidal intent within a week of their deaths.(*10*) Given the unit structures of Navy and Marine Corps, peers are usually the first to know when their buddies or co-workers are facing difficulties that could escalate into suicidal behavior. Suicide awareness training is, therefore, a crucial element to an effective prevention program.(*5*) The purpose of such training is to create awareness of suicide risk factors and to educate sailors and Marines about appropriate ways to intervene. Current instructions task Navy and Marine leaders with providing prevention training to their troops. Standardized resources with up-to-date information, however, were not previously developed to support such training. Since the manpower requirements for locally creating such prevention materials are prohibitive, the DON created an "all-hands" suicide prevention video with a supporting Facilitator's Manual. By having a standardized training resource, Navy and Marine Corps can ensure that a consistent message on suicide prevention reaches the Fleet.

The new DON Training Package entitled *Suicide Prevention: Taking Action-Saving Lives* was released to the Fleet in Summer 2000. The standard package was developed for both Navy and Marine Corps Community—from new recruits to senior officers. In FY-01 it was included as required annual General Military Training (GMT) by Chief of Naval Education and Training (CNET). Annual suicide prevention training was previously encouraged but not required by the Navy. Navy and Marine Corps program managers worked with Naval Media on all phases of the project from script writing to final editing and production. Specific steps were taken to highlight positive role models in suicide prevention. As a consequence, this video does not show people attempting to commit suicide or offer dramatic testimonials of those who survived serious suicide attempts. The video emphasizes the role of "first responders," people who first recognize the threat or risk of suicide and work to prevent the possibility of a suicide. The real heroes are the people who take action to help before a problem escalates into suicidal behavior. The video uses common scenarios to illustrate ways that sailors and Marines can proactively take care of each other (e.g., a sailor acts to help his roommate who is having difficulty adapting to a training school environment; and in another scene, a senior officer provides support to another officer who failed to select for promotion).

The objectives of the training include: encouraging leaders at all levels to act to prevent problems that detract from unit readiness and quality of life, increasing awareness about personal responsibility to seek assistance or ask for help, addressing fears that personnel have in confronting problems associated with suicide, and pro-

viding practical steps so that people walk away from the training with the thought, "I can do something to help." The video is supported with a manual that includes specific sections on presenting the material and answering typical discussion questions. To ensure that our message was clear, we commissioned the Naval Health Research Center in San Diego, CA, to conduct a series of focus groups with sailors and Marines to obtain feedback about the video. Based on input from these focus groups, we modified the video to show greater diversity with respect to gender and ethnicity in the final version.

Training evaluation and outcome measures

To further refine our prevention efforts, we launched a formal evaluation of the new DON training package. With this evaluation data, we are able to see what works and what does not work for different audiences within the Navy and Marine Corps. Like the DONSIR, this allows an evidence-based approach to program development and revision. Random follow-up survey of 850 service members on their reaction to the training this during the past fiscal year shows an overwhelming general and positive response to the training. In addition, this survey indicated that about 90 percent service members indicated either agreement or strong agreement to the following statements. "Based on this training, I believe that getting help for someone early helps avoid escalation of personal problems." "As a result of this training, my knowledge about the warning signs of suicide has increased." And, "If faced with one of the situations in the video, I am confident that I can assist someone with warning signs of suicide to get help." And while correlation does not prove causality, the introduction of annual suicide prevention GMT requirement coincided with a drop in Navy suicide rate for FY-01 to 9.2/100K. This is the lowest rate in 10 years. However, the presence of an annual training requirement in suicide prevention is not new for the Marine Corps. Marine Corps previously required annual suicide prevention training but format was not standardized. The Marine Corps rate FY-01 rate is 15.6. Marine Corps program manager is reviewing training presentation format for potential improvement in delivery and reception of the material.

Policy Interventions

The chief means of implementing interventions within the military is the promulgation of policy guidelines. At present, policies related to suicide prevention are found in a number of separate Navy and Marine Corps orders. Since these orders were developed at different times and with different program objectives in view, it is not surprising that commands are unclear as to their resources and responsibilities in suicide prevention. A collaborative effort among all the services is now underway to establish a best practices approach to suicide prevention throughout DOD. A comprehensive instruction that references all the relevant information—including providing awareness education, reinforcing local multi-disciplinary training and intervention, conducting mental health evaluations, offering treatment services, providing postvention services, and completing suicide incident reports—is now underway. At the DON and DOD levels, system wide policies and interventions will be viewed in light of regional and national strategies to ensure intra- and inter-agency collaboration and allowing for cross-fertilization with current best practice information.

Summary

In this paper we have described the current status of an ongoing organizational assessment and intervention to improve suicide prevention efforts within Navy and the Marine Corps. Interrelated initiatives on policy, training, and data collection promise to significantly improve our prevention program. We will not deem our suicide prevention program a complete success as long as any Sailor or Marine ends his or her life by suicide. By encouraging proactive leadership, we in the DON are making strides in preventing suicide and in improving the quality of life of our Sailors, Marines, and their families.

The authors gratefully acknowledge the consulting work of Dr. Lanny Berman and the American Association of Suicidology in developing the Department of the Navy Suicide Incident Report and in creating the DON Suicide Prevention Training Kit. The authors are also grateful for the consulting work of Dr. Michael Gelles, NCIS, in advising on various aspects of the DON program.

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The Life and Death of Naval Hospital Philadelphia

Photo courtesy of the Philadelphia Inquirer

The destruction of Naval Hospital Philadelphia.

At 0702, 9 June 2001, the abandoned Naval Hospital Philadelphia came crashing down to become another forgotten relic of the city and the Navy's past. With little fanfare other than the explosion of 200 pounds of dynamite the life cycle of the 66-year-old art deco complex was now complete.

The construction of the hospital located in South Philadelphia at 16th and Pattison began on 20 February 1933 lasted 2 years, and cost just over $ 3 million dollars. Unlike many other naval hospitals in use at the time this institution's activities were concentrated in a 13-story skyscraper constructed from structural steel with walls of limestone, brick, and hollow tile. Its art deco architectural design was an outgrowth of the school of architecture prominent in the early 1930s. At the time of its commissioning its bed capacity stood at 650; this would later increase to as many as 3,500 during the Vietnam War.

Among the services maintained at the hospital were important dermatological, aural rehabilitation, dependent's (both in-patient and out-patient), extensive Veterans' Administration out-patient, and a neuro-psychiatric service established in 1949. This service would be designated as the center for the eastern half of the United States. It was also designated as a leading medical teaching hospital for interns.

From World War II to the Korean War and the Vietnam War the hospital served thousands of sick and injured service members. However, through time the facilities grew shabby and the population and medical staff shrunk. In 1978 the residency program was discontinued. In the same year a General Accounting Office (GAO) report cited the hospital as unsafe. It did not conform to fire-resistant construction requirements, exit facilities were deemed inadequate, emergency power and lighting were not available to the medical, surgical and recovery wards, and the fire alarm system did not provide coverage to all wards. Repairs would be costly and, according to the report, the actual Navy need for a medical facility in Philadelphia was yet to be clarified.

In 1991 the complex was decommissioned as a hospital and commissioned as a Naval Medical Clinic. Still, the hospital's future remained dim. The clinic was closed in 1995, leaving the site vacant and an available target for destruction. Later in September 1996, the Naval Shipyard ceased operations, all but removing the Navy from a town steeped in naval history.

Currently, the remnants of the imploded hospital are being cleared and readied for the construction of a 1,500-space parking lot that is to be used for two new sports stadiums.

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Book Review

Weapons of Mass Destruction Emergency Care by Robert De Lorenzo and Robert Porter. Brady/Prentice Hall Health Publishers, New Jersey. 152 pages, 1999.

Dr. Robert De Lorenzo, is an Army major and Clinical Associate Professor of Military and Emergency Medicine at the Uniformed Services University of the Health Sciences. His co-author Robert Porter, is a flight paramedic and senior advanced life support instructor in New York State. The two have written an excellent primer on the first response treatment techniques from the devastation caused by weapons of mass destruction (WMD).

The book is designed specifically for the pre-hospital responder using both basic and advanced life support techniques and is recommended for all Navy Hospital Corps personnel. Each chapter contains a reading list for those wishing to delve further into a specific aspect of the topic. Seven chapters deal with the medical aspects of WMD from the physiological effects to the psychological trauma of a terrorist attack caused by conventional, nuclear, and biochemical weapons.

The authors explain the physics of nuclear and conventional weapons and the types of injuries encountered as measured from the distance of the detonation. Over a dozen biological weapons from anthrax to smallpox are covered emphasizing effects on patients and recommended treatments.

There is a general belief that all biological agents are deadly. Although this is not the case, readers will gain true insight into what is truly lethal and what agents are irritants that can overwhelm emergency rooms and medical systems. The authors detail injuries and treatments using the BNICE acronym for threats. BNICE stands for **b**iological agents, **n**uclear devices, **i**ncendiary devices, **c**hemical agents, and conventional **e**xplosives.

Many of the concepts discussed in the book are laid out in table format for quick reference. There are portions devoted to the types of protective garments used to respond to specific attacks, and ways to manage those providing care under such an environment. For example, a person in a full suit and mask can expect to add between 10-15 degrees Fahrenheit to the outside temperature of the area of operation.

The book contains three appendices. Appendix A carefully discusses medication and prophylaxis for each contingency. Appendix B deals with nuclear, biological, and chemical protection procedures, emphasizing everything from what detection kits are available to the proper donning of masks and other gear.

Appendix C talks about field amputations, a little discussed aspect of some emergencies when a limb might require removal to free a hopelessly trapped victim.

Weapons of Mass Destruction Emergency Care is a welcome addition to any military treatment facility library, especially in light of recent events. Disaster preparedness and coping with casualties that might result from WMD must be a nationwide, citywide, and community-wide issue and in the forefront of discussion among military, private, and public hospitals. Take the time to learn more about these types of injuries. As we have all learned, the threat is very real.

—LT Youssef Aboul-Enein, MSC, USN is studying at the Joint Militrary Intelligence College in Washington DC.

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